

Amendments to the Claims:

1. (currently amended) A cementitious composition for mixing with an effective amount of water comprising approximately 1.125 gallons of water per cubic foot of cementitious composition to approximately 1.96 gallons per cubic foot of cementitious composition to form a structural product, the composition comprising:

an effective amount of bottom ash, said bottom ash comprising a fine first portion and a coarse second portion, said coarse second portion comprising a particle size between .75 inches to .003 inches and said fine first portion comprising a particle size of less than about .006 inches, said first and second portions being mixed together to provide a particle distribution for said bottom ash wherein approximately fifty percent of said bottom ash has a particle size less than about .012 inches;

an effective amount of Portland cement; and

wherein said bottom ash and said cement are in a ratio between 2:1 and 2:3 by weight.

2. (canceled)

3. (original) A composition according to Claim 1 wherein the structural product formed from mixing the composition with the effective amount of water has at least one of a seven-day compressive strength of at least about 4,000 psi and a twenty-eight-day compressive strength of at least about 5,000 psi.

4. (original) A composition according to Claim 1 wherein the structural product formed from mixing the composition with the effective amount of water has at least one of a seven-day compressive strength of at least about 5,000 psi and a twenty-eight-day compressive strength of at least about 6,000 psi.

5. (original) A composition according to Claim 1 wherein the composition has a per unit volume weight of less than about 100 pounds per cubic foot of volume.

6. (canceled)

7. (canceled).

8. (original) A composition according to Claim 1 wherein approximately fifty percent of said bottom ash has a particle size less than about .012 inches.

9. (currently amended) A cementitious composition for mixing with an effective amount of water comprising approximately 1.125 gallons of water per cubic foot of cementitious composition to approximately 1.96 gallons per cubic foot of cementitious composition to form a structural product, the composition comprising:

an effective amount of bottom ash, said bottom ash comprising a ~~fine~~ first portion and a ~~coarse~~ second portion, said ~~coarse~~ second portion comprising a particle size between .75 inches to .003 inches and said ~~fine~~ first portion comprising a particle size of less than about .006 inches, said first and second portions being mixed together to provide a particle distribution for said bottom ash wherein approximately fifty percent of said bottom ash has a particle size less than about .012 inches;

an effective amount of Portland cement; and

wherein the composition has bottom ash and cement in a ratio between 2:1 and 2:3 by weight, has a per unit volume weight of less than about 100 pounds per cubic foot of volume and wherein the structural product formed from mixing the composition with the effective amount of water has a seven-day compressive strength of at least about 2,500 psi.

10. (original) A composition according to Claim 9 wherein the composition has a per unit volume weight of less than about 90 pounds per cubic foot of volume.

11. (original) A composition according to Claim 9 wherein the structural product formed from mixing the composition with the effective amount of water has a seven-day compressive strength of at least about 4,000 psi.

12. (original) A composition according to Claim 9 wherein the structural product formed from mixing the composition with the effective amount of water has a seven-day compressive strength of at least about 5,000 psi.

13. (original) A composition according to Claim 9 wherein the structural product formed from mixing the composition with the effective amount of water has a twenty-eight-day compressive strength of at least about 5,000 psi.

14. (original) A composition according to Claim 9 wherein the structural product formed from mixing the composition with the effective amount of water has a twenty-eight-day compressive strength of at least about 6,000 psi.

15. (canceled)

16. (canceled)

17. (original) A composition according to Claim 9 wherein approximately fifty percent of said bottom ash has a particle size less than about .012 inches.

18. (currently amended) A high strength cementitious composition for mixing with an effective amount of water comprising approximately 1.125 gallons of water per cubic foot of cementitious composition to approximately 1.96 gallons per cubic foot of cementitious composition to form a structural product, the composition comprising:

an effective amount of bottom ash, said bottom ash comprising a fine first portion and a coarse second portion, said coarse second portion comprising a particle size between .75 inches

to .003 inches and said ~~fine~~ first portion comprising a particle size of less than about .006 inches, said first and second portions being mixed together to provide a particle distribution for said bottom ash wherein approximately fifty percent of said bottom ash has a particle size less than about .012 inches; and

an effective amount of Portland cement; and

wherein the composition has bottom ash and cement in a ratio between 2:1 and 2:3 by weight.

19. (canceled)

20. (original) A composition according to Claim 18 wherein the structural product formed from mixing the composition with the effective amount of water has at least one of a seven-day compressive strength of at least about 4,000 psi and a twenty-eight-day compressive strength of at least about 5,000 psi.

21. (original) A composition according to Claim 18 wherein the structural product formed from mixing the composition with the effective amount of water has at least one of a seven-day compressive strength of at least about 5,000 psi and a twenty-eight-day compressive strength of at least about 6,000 psi.

22. (original) A composition according to Claim 18 wherein the composition has a per unit volume weight of less than about 100 pounds per cubic foot of volume.

23. (canceled)

24. (canceled)

25. (original) A composition according to Claim 18 wherein approximately fifty percent of said bottom ash has a particle size less than about .012 inches.

26. (currently amended) A cementitious product for mixing with an effective amount of water comprising approximately 1.125 gallons of water per cubic foot of cementitious composition to approximately 1.96 gallons per cubic foot of cementitious composition to form a structural product, comprising:

a container having a volume;

a cementitious composition substantially filling the volume of said container, said composition comprising:

an effective amount of bottom ash, said bottom ash comprising a ~~fine~~ first portion and a ~~coarse~~ second portion, said ~~coarse~~ second portion comprising a particle size between .75 inches to .003 inches and said ~~fine~~ first portion comprising a particle size of less than about .006 inches, said first and second portions being mixed together to provide a particle distribution for said bottom ash wherein approximately fifty percent of said bottom ash has a particle size less than about .012 inches;

an effective amount of Portland cement; and

wherein said composition has bottom ash and cement in a ratio between 2:1 and 2:3 by weight, and wherein said container and said composition together weigh less than approximately 100 pounds per cubic foot of volume.

27. (original) A product according to Claim 26 wherein said container and said composition weigh less than approximately 90 pounds per cubic foot of volume.

28. (canceled)

29. (original) A product according to Claim 26 wherein the structural product formed from mixing said cementitious composition of the product with the effective amount of water has at least one of a seven-day compressive strength of at least about 4,000 psi and a twenty-eight-day compressive strength of at least about 5,000 psi.

30. (canceled)

31. (canceled)

32. (original) A product according to Claim 26 wherein approximately fifty percent of said bottom ash has a particle size less than about .012 inches.

33. (original) A product according to Claim 26 wherein said container is selected from the group consisting of a paper bag, a plastic bag, and a plastic bucket having a lid.

34. (currently amended) A method of manufacturing a cementitious product for use in forming a structural product, comprising:

providing an effective amount of bottom ash, wherein the bottom ash comprises a first portion and a second portion, the second portion comprising a particle size between .75 inches to .003 inches and the first portion comprising a particle size of less than about .006 inches, said providing step comprising mixing the first and second portions together to provide a particle distribution for the bottom ash wherein approximately fifty percent of the bottom ash has a particle size less than about .012 inches;

mixing an the effective amount of bottom ash with and an effective amount of Portland cement in a ratio of bottom ash to cement between 2:1 and 2:3 by weight, ~~wherein the bottom ash comprises a fine first portion and a coarse second portion, the coarse second portion comprising a particle size between .75 inches to .003 inches and the fine first portion comprising a particle size of less than .006 inches,~~ to thereby provide a cementitious composition; and

packaging the composition in a container wherein the container and the composition together weigh less than approximately 100 pounds per cubic foot of volume.

35. (canceled)

36. (currently amended) A method according to Claim 34 wherein said ~~mixing~~ providing step comprises removing particles from the bottom ash having a particle size exceeding about .75 inches.

37. (currently amended) A method according to Claim 34 wherein the ~~fine~~ first ~~portion~~ and ~~coarse~~ second portion are substantially equally weighted.

38. (canceled)

39. (original) A method according to Claim 34 wherein said packaging step comprises packaging the composition in a container wherein the container and the composition together weigh less than approximately 90 pounds per cubic foot of volume.

40. (original) A method according to Claim 34, wherein said packaging step comprises packaging the composition in a container wherein the container is selected from the group consisting of a paper bag, a plastic bag, and a plastic bucket having a lid.

41. (currently amended) A method of making a structural product, comprising:
providing an effective amount of bottom ash, wherein the bottom ash comprises a first portion and a second portion, the second portion comprising a particle size between .75 inches to .003 inches and the first portion comprising a particle size of less than about .006 inches, said providing step comprising mixing the first and second portions together to provide a particle distribution for the bottom ash wherein approximately fifty percent of the bottom ash has a particle size less than about .012 inches;

mixing the ~~providing a cementitious composition comprising an effective amount of bottom ash and~~ with an effective amount of cement in a ratio of bottom ash to cement between 2:1 and 2:3 by weight, ~~wherein the bottom ash comprises a fine portion and a coarse portion, the coarse portion comprising a particle size between .75 inches to .003 inches and the fine portion comprising a particle size of less than .006 inches;~~

mixing an effective amount of water with the cementitious composition, the effective amount of water being approximately 1.125 gallons of water per cubic foot of cementitious composition to approximately 1.96 gallons per cubic foot of cementitious composition; and

subsequent to said third mixing step, curing the cementitious composition to thereby form a structural product having at least one of a seven-day compressive strength of at least about 2,500 psi and a twenty-eight-day compressive strength of at least about 4,000 psi.

42. (original) A method according to Claim 41 wherein said curing step comprises curing the cementitious composition to thereby form a structural product having at least one of a seven-day compressive strength of at least about 4,000 psi and a twenty-eight-day compressive strength of at least about 5,000 psi.

43. (original) A method according to Claim 41 wherein said curing step comprises curing the cementitious composition to thereby form a structural product having at least one of a seven-day compressive strength of at least about 5,000 psi and a twenty-eight-day compressive strength of at least about 6,000 psi.

44. (previously presented) A composition according to Claim 1 wherein the structural product formed from mixing the composition with the effective amount of water has at least one of a seven-day compressive strength of at least about 2,500 psi and a twenty-eight-day compressive strength of at least about 4,000 psi.

45. (previously presented) A composition according to Claim 18 wherein the structural product formed from mixing the composition with the effective amount of water has at least one of a seven-day compressive strength of at least about 2,500 psi and a twenty-eight-day compressive strength of at least about 4,000 psi.

Appl. No.: 10/627,166

Amdt. dated 01/12/07

Reply to Office Action of July 12, 2006

46. (previously presented) A product according to Claim 26 wherein the structural product formed from mixing said cementitious composition of the product with the effective amount of water has at least one of a seven-day compressive strength of at least about 2,500 psi and a twenty-eight-day compressive strength of at least about 4,000 psi.